

we have not even scored it. We don't know how much it will cost. Yet we are here. We want to get it on the floor. We have not had the farm bill before the committee, not even had a chance to look at it, but we were asked to mark it up. That is not the best way to deal with the important issues there. We can deal with them.

I am hopeful we will slow down just a moment, decide what it is that is most important for the country that we do in the very little time we have, and not just absolutely think we ought to be spending every dime we can possibly find. That is not necessarily the thing to do at this point.

Hopefully, we will be able to do that. I hope we can do at least those two things, the appropriations bills and the stimulus package. These other things ought to have a little more thought. We are going to be back next year, early. We can put a time certain on those and do them at that point.

Madam President, I suggest the absence of a quorum.

The PRESIDING OFFICER. Will the Senator withhold his suggestion of the absence of a quorum?

Mr. THOMAS. I withhold the request.

RECESS

Mr. THOMAS. If it would be more appropriate, I ask unanimous consent that the Senate be in recess until 2:15.

The PRESIDING OFFICER. That would be appropriate.

The Chair thanks the Senator.

There being no objection, the Senate, at 12:25 p.m., recessed until 2:15 p.m. and reassembled when called to order by the Presiding Officer (Mr. NELSON of Florida).

The PRESIDING OFFICER. The Senator from Tennessee is recognized.

Mr. FRIST. Mr. President, I ask unanimous consent that I be given 15 minutes in morning business.

The PRESIDING OFFICER. Without objection, it is so ordered.

PROHIBITION OF HUMAN CLONING

Mr. FRIST. Mr. President, I rise to continue a discussion that began in morning business earlier today. That is on the issue of human cloning. I had not expected to be talking about this issue during the closing days of this session of Congress. But I feel compelled to do so in light of Sunday's announcement. That is indeed very troubling for everybody as they seek to understand what this is all about after Sunday's announcement that a U.S. company is pursuing the purposeful creation of cloned human embryos.

I believe all human cloning for scientific reasons, for ethical reasons, and for reasons surrounding the health and safety of women should be banned.

This whole subject of human cloning was the subject of a lot of discussion earlier this year. This summer, the House of Representatives passed a bill prohibiting the human cloning by a

large and overwhelming margin. But in light of the events of September 11, much of the discussion was put aside. A lot of that changed on Sunday. And now I believe it is incumbent upon the Senate to address this critical issue before adjourning for the year.

I urge the majority leader to call up the House bill and to allow the Senate to work its will on that bill. We don't have the luxury of time that I think many of us thought we had. If we look over the last several years—really beginning in 1997, when Scottish researchers first captured the attention of the world after they used the process called somatic cell nuclear transfer to successfully clone that adult sheep by the name of Dolly—since that period of time a lot has happened in this particular body. The portrayal of human cloning has intrigued our imagination over the last 4 to 5 years. But we all must recognize that this is serious business. The idea that cloning human beings may be technologically possible challenges our fundamental beliefs—whether they be spiritual, or whether they be moral. Those people who pay attention to science ask if it is really possible. I believe the answer is yes. But what it really causes us to do is to go back and challenge our fundamental beliefs on what the appropriate limits are or should be of human control over nature.

I tell you, as a scientist and as someone who has thought a lot about end-of-life issues or beginning-of-life issues and disease and health, it provokes, in me, a lot of concern in terms of the issues of how much to intervene, at what point, what is someone's motive, and can that motive be shifted in such a direction that the great promises of science can be used to the abuse of what most people would regard as their moral sensibilities.

After the Dolly announcement, we held a series of hearings in the Health, Education, Labor, and Pensions Committee. The first hearing focused on science. We had scientists testify. We looked at all types of cloning: Animal cloning, human cellular cloning, and the cloning of a human embryo, the cloning of human individuals.

At the second hearing we had ethicists and theological representatives come in. We listened to distinguished individuals testifying from the Christian faith, the Jewish traditions, the Islamic traditions, all relating to human cloning. We also listened to philosophers well schooled in biomedical ethics.

The story went on. The National Bioethics Advisory Committee (NBAC), at the request of President Clinton, looked at, studied, and made a report on the moral and ethical issues as well as the scientific standpoints. NBAC then reported to the President that reproductive cloning was unsafe and should be prohibited by Federal law.

About a year after that, Senator BOND and I, based on our hearings, and based on that National Bioethics Advi-

sory Committee report, introduced the Human Cloning Prohibition Act along with a number of our other colleagues. That bill would have prohibited the use of somatic cell nuclear transfer technology to produce a human embryo.

At the time—and the time today is very different; again, that was in 1998—the science of issues such as stem cell research, particularly embryonic stem cells, was all hypothetical. It was all theoretical. This whole field of embryonic stem cell research existed, but only as a hope of what might be. No research using embryonic stem cells had actually been conducted at the time.

The overall science of these issues, of cloning and stem cell research, was relatively undeveloped and even less understood. The bill got caught up in a lot of concerns that it could prevent this whole field of embryonic stem cell research from progressing, and the bill really fell by the wayside.

Indeed, almost 2 years would pass between the announcement of Dolly, the sheep, in 1997 and the groundbreaking reports on the successful isolation of what are called human pluripotent stem cells. It was 2 years after Dolly.

Now, more than 2 additional years past, the field of embryonic stem cell research has really made great strides, although it is still in its infancy, as we are seeing today. Today there are more than 60 established embryonic stem cell lines worldwide. The research, I believe, does show great promise for stem cell research as we look to the future.

We have also learned a lot about adult stem cells. Only recently people understood there are two—indeed, there are three—but two main types of stem cells: One is adult, and one is embryonic. A lot of our traditionally held beliefs about the adult stem cells, the fact that they can only go in one direction, have been modified as we have studied them scientifically. Now we know they are not restricted to one fate or one direction.

This past year, the NIH spent \$250 million on stem cell research. That number, I am quite certain, is going to grow in the future because of the promise of stem cell research for therapies for a range of diseases. That money will be spent for both adult stem cell and embryonic stem cell research.

I will say that overall stem cell research is in its very early stages and there is a lot to learn. I have just outlined what we have learned in the last 2 years, and in the 2 years prior to that from the time that Dolly was first cloned.

But what we can say now, with confidence, I believe, is that a ban on human cloning—again, we are talking about stem cells and human cloning—a ban on human cloning will not be a barrier in any way to the aggressive pursuit of embryonic or adult stem cell research. I would argue that it is just to the contrary of what some people say, that if you ban human cloning in some way it might slow down stem cell research.